This listing of claims will replace all prior versions, and listings, of claims in the application:

<u>Listing of Claims:</u>

1.   (Currently Amended)   A method for generating hierarchical keys of digital assets <u>, encrypting the digital assets in a digital asset server, and utilizing the keys of the digital assets and the encrypted digital assets in an associated digital asset client</u>, comprising the steps of:

arranging the digital assets <u>in the digital asset server</u> as at least one tree structure, a root node of the tree structure representing a complete set of the digital assets, other group nodes representing sub-sets in each level of the digital assets respectively, and the nodes in the lowest level being leaf nodes;

<u>randomly</u> generating ~~the~~ <u>a</u> key of the root node <u>in the digital asset server</u>; ~~and~~

starting with the key of the root node, using the key of a father node to compute level by level ~~the~~ <u>computed</u> keys of its child nodes through to leaf nodes <u>using a one way function, in the digital asset server</u> [[.]]

<u>encrypting corresponding digital assets in the digital asset server using the computed keys;</u>

<u>requesting an encrypted digital asset at the digital asset client, and determining if a key for the requested encrypted digital asset is present on the digital asset client;</u>

<u>if the digital asset key is not present on the digital asset client, the digital asset client requesting the digital asset key from the digital asset server;</u>

<u>the digital asset server receiver requests from the digital asset client, and thereafter transmits a digital asset key, if requested, and a requested encrypted digital asset from the digital asset server to the associated digital asset client; and</u>

<u>receiving the key and the encrypted digital asset from the digital asset server at the digital asset client and decrypting the encrypted digital asset utilizing the key</u>.

2.   (Originally Presented)   The method according to claim 1, comprising computing different keys for two nodes having the same father node.

3.   (Originally Presented)   The method according to claim 1, comprising computing different keys for child nodes having the same father node.

4. – 5. (Canceled)

6.   (Currently Amended)   The method according to claim [[5]] 1, comprising encrypting the corresponding digital assets using at least a part of the generated node keys or their deformation.

7.   (Currently Amended)   The method according to claim 6 comprising encrypting the digital assets using a cipher, and encrypting the cipher using at least a part of the generated node keys or their deformation, said deformation indicating the result computed from the node keys.

8.   (Originally Presented)   The method according to claim 1, wherein the digital assets are chosen from the group consisting of video, audio and text materials.

9.   (Currently Amended)   An apparatus for managing generating digital assets and hierarchical keys of the digital assets, comprising a digital asset server and a digital asset client:

   said digital asset server comprising a central processor unit, a bus, and memory, and further comprising:

   (a)   a key tree management unit for arranging the digital assets as at least one tree structure for management, a root node of the tree structure representing the complete set of the digital assets, other group nodes representing sub-sets in each level of the digital assets respectively, and the nodes in the lowest level being leaf nodes, said apparatus

further comprises:

(b) a root node key generating unit for generating the key of the root node; and

(c) a first computing unit for starting with the key of the root node, using the key of a father node to compute level by level the keys of its child nodes according to a predetermined one-way function, through to leaf nodes;

(d) an encrypting unit for encrypting the corresponding digital assets by using at least a part of the generated node keys; and

said digital asset client comprising a central processor unit, a bus, and memory, and further comprising:

(a) a second computing unit for requesting an encrypted digital asset from the digital asset server, searching for node keys stored on the digital asset client for the requested digital asset, and, computing the keys of the nodes in lower levels of said node through to leaf nodes in turn; and

(b) a decrypting unit for decrypting the digital assets contained in all nodes by using the computed node keys of all nodes of the requested digital assets.

10.   (Canceled)

11.   (Currently Amended)   The apparatus according to claim 9, adapted for ~~computing different keys from different keys having the same father node~~ computing different keys for different nodes having the same father node.

12.   (Canceled)

13.   (Currently Amended)   The apparatus according to claim 9, further comprising an encrypting unit for encrypting the digital assets first by using a cipher, and then encrypting the cipher by using at least a part of the generated node keys ~~or their deformation, said deformation indicating the result computed from the node keys~~.

14.-19. (Canceled)

20.   (Currently Amended)   A program product comprising media including a machine-readable data storage medium selected from the group consisting of magnetic hard drives, RAID arrays, RAMACs, a magnetic data storage diskettes, magnetic tape, digital optical tape, RAMs, ROMs, EPROMs, EEPROMs, and flash memories, having computer readable instructions written thereon for directing a computer to perform a process for generating hierarchical keys of digital assets and encrypting the digital assets in a digital asset server, and utilizing the keys of the digital assets and the encrypted digital assets in an associated digital asset client, comprising the steps of:

arranging the digital assets in the digital asset server as at least one tree structure, a root node of the tree structure representing a complete set of the digital assets, other group nodes representing sub-sets in each level of the digital assets respectively, and the nodes in the lowest level being leaf nodes;

randomly generating ~~the~~ a key of the root node in the digital asset server; and

starting with the key of the root node, using the key of a father node to compute level by level ~~the~~ computed keys of its child nodes through to leaf nodes using a one way function, in the digital asset server [[.]]

transmitting a key and an encrypted digital asset from the digital asset server to the associated digital asset client; and

receiving the key and the encrypted digital asset from the digital asset server at the digital asset client and decrypting the encrypted digital asset utilizing the key.

21.   (Originally Presented)   The program product according to claim 20, said process comprising computing different keys for two nodes having the same father node.

22.   (Originally Presented)   The program product according to claim 20, said process comprising computing different keys for child nodes having the same father node.

23.-24. (Canceled)

25.   (Currently Amended)   The program product according to claim ~~24~~ 21, said process comprising encrypting the corresponding digital assets using at least a part of the generated node keys or their deformation.

26.   (Currently Amended)   The program product according to claim 25 said process comprising encrypting the digital assets using a cipher, and encrypting the cipher using at least a part of the generated node keys ~~or their deformation, said deformation indicating the result computed from the node keys~~.

27.   (Originally Presented)   The program product according to claim 20, wherein the digital assets are chosen from the group consisting of video, audio and text materials.